

# Memorandum

To: Advisory Committee, Community Action Plan for Seismic Safety  
Date: September 5, 2008  
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Subject: Incentives to Encourage Seismic Retrofits: Options for San Francisco

## ***Introduction***

The purpose of this memorandum is to identify possible incentives to encourage seismic retrofitting in San Francisco. This topic will be discussed at the CAPSS Advisory Committee meeting of September 10th. During the meeting, committee members will be asked to review the incentives described in this memorandum, make suggestions for refinements and additional incentives, and comment on the incentives that have potential value to encourage seismic retrofitting in San Francisco. In particular, the discussion will focus on incentives that would be most likely to encourage retrofit by owners of wood-frame multi-unit residential buildings with “soft” or weak ground floors.

This memorandum is a first step to describe possible incentives for seismic retrofitting. Some of the ideas mentioned here have more details than others. Many are not fully fleshed out. Undoubtedly there are additional incentives that could be offered that are not described here. The discussions on September 10<sup>th</sup>, and subsequent discussions, will lead to a more refined list of incentives that make sense for San Francisco.

## ***Background***

A significant earthquake could destroy more than a quarter of the building stock in San Francisco. This level of damage would injure thousands, cripple the city’s economy, cause a housing crisis, devastate tourism, and irrevocably change the character and affordability of the city. Some argue that the damage could reach a “tipping point,” causing recovery challenges that would persist for years. These are compelling reasons to consider earthquake losses to privately-owned buildings a community issue, more than simply a collection of many private losses experienced by building owners and their tenants. If avoiding these consequences is a community priority, it could make sense for the community to invest in encouraging private building owners to seismically retrofit.

Over time, San Francisco could work to reduce its vulnerability by seismically upgrading the weakest buildings. Designing a program to improve the earthquake performance of buildings involves many variables and elements:

- **Scope:** Which buildings should be addressed?
- **Priorities:** Should any particular building type, use or occupancy be addressed before other buildings?
- **Approach:** What is the proper degree of government intervention? Should building retrofits be required or encouraged?

- **Implementation Period:** How many years is the City willing to wait until the building stock is strengthened?
- **Incentives:** To what degree should the City encourage compliance with a program given that there are benefits to retrofitting that accrue to the general public and not just owners?
- **Acceptable Performance Objectives:** How much damage is acceptable in privately-owned buildings after an earthquake, and are there different levels of acceptable damage for buildings with different uses?

This memorandum presents options for one of these elements: incentives to encourage building owners to seismically retrofit their buildings. These options have been collected from efforts in other communities, previous efforts in San Francisco, and ideas that have not yet been tried in any community. Not all of these ideas will be appropriate for San Francisco. The Advisory Committee could help determine which incentives are appropriate for San Francisco and meaningful to its building owners.

### ***Incentives***

Incentives for seismic retrofits could be offered to encourage voluntary retrofits or to ease the impact of mandated seismic upgrades. For example, the city could develop a policy to require owners of vulnerable buildings to upgrade to a minimal standard that would save lives, and incentivize them to retrofit to a higher standard that would ensure buildings could be occupied and are repairable after earthquakes, preserving post-earthquake housing and improving resilience.

The most effective approach might be to offer multiple incentives because no single incentive or combination of incentives will serve the interests of every building owner. The decision of a building owner to seismically retrofit is complex and occurs within a context of many competing needs. Building owners vary significantly, ranging from a city resident who owns one apartment building that they live in themselves to a corporation, and have varying knowledge, resources and motivation. A variety of incentives would allow owners to assemble unique combinations to satisfy their particular needs.

Building retrofit incentives can be divided into the following categories:

- **Financial incentives:** grants, rebates, credits, loans, loan interest reductions, deferred loans, donated and reduced-rate labor, insurance premium savings, fee waivers
- **Policy incentives:** expedited processing of permit applications and loan applications, waiver of property restrictions
- **Technical assistance incentives:** advice on retrofitting, standard details, help with garnering incentives, assistance with contracting questions
- **Information incentives:** information and materials

Examples from each of these categories are discussed below.

## ***Options for Incentives to Encourage Seismic Retrofits***

### **1. Financial Incentives**

Financial incentives reduce the costs of seismic retrofits for owners. It could make sense for communities to offer financial incentives because, while many of the benefits of retrofits go directly to building owners, there are also larger societal benefits, such as safety for tenants and preserved affordable housing and neighborhood character.

The California Constitution (Article XVI, Section 6) prohibits gifts of public funds for private purposes. However, seismic retrofits of privately owned buildings have been supported by programs such as loans, grants to low income residents and non-profit organizations, and tax rebates, in recognition of their public benefits. Whether the City could subsidize private owners who retrofit their buildings, voluntarily or because of a mandate, should be considered by the City Attorney. Conflicting opinions have been voiced, but there seems to be flexibility in interpreting the law when the public will benefit in ways such as improved public safety. See Appendix I.

#### **1.1. Grants, Credits and Rebates**

San Francisco could provide grants or rebates to pay for a portion of qualified expenditures on building evaluation, design drawings and/or construction.

Communities have used redevelopment funds and Community Development Block Grant (CDBG) funds to provide grants to cover costs associated with retrofitting vulnerable buildings. CDBG funds could only be used for low- and moderate-income homeowners and Small Business Administration CDC/504 loans (Certified Development Corporation) might be available for small businesses

The following communities provided grants or rebates for their unreinforced masonry building (URM) retrofit programs:

- Inglewood, CA: City reimbursed up to \$3,000 of cost of engineering studies and 100-percent of plan check fees, permits and taxes using redevelopment money;
- San Jose, CA: provided redevelopment fund grants for engineering design work;
- Tustin, CA: Used CDBG grants of up to \$2,000 to cover engineering costs; and
- West Hollywood, CA: Used CDBG grants of up to \$7,100 per building and housing rehabilitation program of \$10,000 per building.

(EERI, p 39)

- The City of Sonoma reimbursed owners for a portion of engineering fees.

#### **1.2. Property Tax**

Existing state tax law (Section 74.5 California Revenue and Taxation Code) provides that the cost of an earthquake retrofit should not increase the property assessment used to determine the amount of property taxes. However, it could be challenging for building owners to secure this benefit because they must submit specific information to their

County Assessor's Office prior to conducting retrofit work. Due to lack of state support, many Assessor's Offices around the state do not have forms for this purpose and their staff are not trained to process this benefit.

At this time, we do not know whether and how San Francisco manages this issue. In a few jurisdictions, city officials have worked with the County Assessor's Office to facilitate this process for building owners. San Francisco could make sure that this benefit is truly available to building owners, and could advertise and explain it to homeowners so that they follow proper procedures.

Further incentives involving property tax are possible, such as deferred or reduced property taxes for building owners who have seismically retrofitted. Currently, we are unaware of other communities that have offered this type of incentive for seismic upgrades.

### **1.3. Real Estate Transfer Tax Rebate**

San Francisco currently has a real estate transfer tax of 0.68-percent of the purchase price for properties sold for under \$1 million and 0.75-percent for properties sold for over \$1 million. The City could rebate a portion of this transfer tax to homeowners who spend those funds on qualified seismic safety upgrades. If reducing City revenue is not acceptable, the tax rate could be raised by the amount offered to compensate for seismic retrofitting.

The City of Berkeley rebates up to one-third of its transfer tax amount (1.5-percent of purchase price) for qualified earthquake retrofit on homes. This program, along with Berkeley's other retrofit incentives, has led to an estimated 45 percent of the private residences in Berkeley being made more seismically resistant. Over \$6 million in transfer taxes have been rebated.

In 2007, the City of Oakland followed in Berkeley's footsteps and developed a program to offer a rebate of up to one-third of its property transfer tax (1.5 percent of purchase price) if those funds are used for qualified seismic retrofit programs.

There will be a measure on the November 2008 San Francisco ballot (Measure N, "Changing Real Property Transfer Tax Rates") that would rebate one-third of San Francisco's transfer tax to properties for conducting seismic upgrades or installing active solar systems, as well as doubling the transfer tax for properties sold for \$5 million or more.

### **1.4 Fee Rebates**

The City collects fees associated with property taxes and charges for certain services. It could compensate owners who conduct qualified seismic safety upgrades manner by reducing relevant fees.

Reducing fees reduces existing City government resources. If there is no existing fee with a nexus to earthquake emergency management, a new emergency management fee could be established and then reduced to compensate owners who spend their own money to reduce emergency response burdens on the City.

### **1.5. Loans**

The City could assist building owners to pay for seismic retrofits by:

- offering loans with rates lower than commercial rates,
- providing loan guarantees,
- reducing or “buying down” loan interest rates, or
- making market-rate loans available to those who might not otherwise qualify for them.

The City could provide these loan services or assist building owners to get them from other sources. Loans could be repaid through assessment liens paid along with property taxes. Loan payments could be deferred for a period of time, or until the sale of the property for hardship cases.

To reduce or “buy down” loan interest rates, the City, a contractor or another organization wishing to encourage retrofit could subsidize loans by “buying down” with cash the interest rate on a loan to a level below prevailing market rates. For example, a 3-2-1 buy down would reduce the interest by three percent the first year, two percent the second year and one percent the third year and would revert to market rate for the fourth and subsequent years. A three percent buy down of a \$100,000 loan for one year would cost about \$3,000.

In 1992, San Franciscans passed a bond measure to offer loans for mandated retrofits to unreinforced masonry buildings. Most of the funds were intended for market rate loans (7.5 percent rate), and part of the funds were for low-interest loans (2.5 percent rate) for qualified buildings housing low income tenants. Very few building owners took advantage of the market rate loans, but the low-interest loans provided a useful source of financing for some affordable housing upgrades. It is our understanding that to date slightly over 15 percent of the \$350 million has been used for loans; about 13 percent was used for low-interest loans and 2 percent used for market rate loans. Some building owners have stated that they chose not to seek these loans because there were complex conditions attached to the loans and it was easier and more cost-effective to deal with commercial lenders.

In general, many building owners prefer conventional loans from commercial lenders to loans offered by a government entity. Commercial second mortgages are not common and when offered generally have high interest rates. Note that if borrowers default on mortgages, government liens often are paid before loans from other financial institutions. This reduces the equity that covers the private loans and could affect existing mortgages or make new or refinanced mortgages unattractive because mortgage lenders generally do not offer “second place” loans, and if they do, the interest rates will reflect the risk.

The City could fund loan programs for seismic retrofits in a variety of ways, including, but not limited to, those listed below:

- The remaining funds authorized for unreinforced masonry building loans could be repurposed to provide loans to other building types through a ballot measure.
- The City could raise funds for loans to property owners by creating a special city-wide tax district that collects funds from the property owners who voluntarily opt-in to use it as a financing mechanism for seismic safety upgrades. Those that opt-in would pay for the cost of their own loan plus fees necessary to administer the program. Payment could be via property tax assessment over a set period.
- CDBG funds could be used for retrofit loans on homes owned by persons with low or moderate incomes.
- City funds or bond proceeds could be used to fund a retrofit loan loss guarantee fund or purchase insurance on retrofit loans to reduce risk of default and the interest rate. A City department could create a revolving fund for this purpose. Guidance from the City Attorney would be needed to do this.
- Financing for seismic retrofits might be available to eligible non-profit organizations through programs including the Association of Bay Area Governments (ABAG) Authority for Non-Profit Corporations.

#### **1.6. Permit Fee Waivers**

The City could waive or reduce fees charged for building permits, plan checking, planning review and/or variance applications. Currently, an ordinance to provide this incentive for voluntary retrofits is being reviewed by the Board of Supervisors.

#### **1.7. Pass Through of Retrofit Costs to Tenants**

Building owners who seismically retrofit their buildings could be allowed to pass through the costs of these retrofits to renters in rent-controlled units.

For the City's unreinforced masonry building program, building owners were allowed to pass through 100 percent of seismic retrofit costs to rent-controlled tenants over a 15 year period, with a maximum increase of 10 percent of the base rent in any one year. This was coupled with a daily stipend for temporary relocation and other protections for tenants. Some, but not all, building owners took advantage of this benefit. Presumably, many buildings had turnover in their tenants, allowing them to rent units at market rate and negating the need to seek pass-throughs for retrofit expenses.

In 2002, the City passed a law allowing 100 percent pass-through of any code mandated seismic or energy upgrades. When this work is voluntary, however, only 50 percent of

costs can be passed through to tenants. The City could alter this to allow 100 percent of expenses for voluntary seismic retrofits to be passed through.

### **1.8. Tax Reductions for Historic Properties**

There are two existing incentive programs that could be used to reduce taxes for historic properties that conduct seismic upgrades: the state Mills Act and the creation of a federal historic district.

The Mills Act (California Government Code, Article 12, Sections 50280 - 50290, California Revenue and Taxation Code, Article 1.9, Sections 439 - 439.4) gives local governments the authority to enter into contracts with owners who restore and maintain historic properties. In exchange, the property owners could get significant property tax savings.

Creating a National Register Historic District could provide a federal income tax credit for qualifying work on contributing historic properties within the district.

The City of St. Helena used both of these tools to assist owners of unreinforced masonry buildings to seismically retrofit. Creating a federal historic district was a successful incentive, giving owners a twenty percent federal tax credit. Many building owners found the Mills Act less appealing because of its cumbersome process.

### **1.9. Insurance Incentives**

Most, but not all, earthquake insurance for single-family homes and renters in California is offered through the California Earthquake Authority (CEA), a publicly managed, largely privately funded organization. CEA policies are offered through participating private insurance companies. The CEA was started in 1996 after the southern California Northridge earthquake, which caused major losses to insurance companies and restricted their willingness to offer earthquake policies. CEA policies reflect the risk of earthquake damage and have higher premiums, higher deductible limits, and more limited content and living expenses coverage than policies prior to Northridge. Private insurance companies offer earthquake insurance on commercial properties such as multi unit residential properties.

The ability of property insurers to offer incentives is limited by market competition, federal tax law, state regulation and the nature of insurance working best when covering large numbers of predictable losses and dispersed over time and location. Risks that are infrequent, unpredictable and concentrated in time and space by a single event are hard to cover by actuarially based reserves.

Currently, the California Earthquake Authority (CEA) offers a five-percent rate credit to those who retrofit their homes. This discount is offered to wood-frame construction dwellings built before 1979 if the frame is tied to the foundation, has cripple walls braced with plywood or its equivalent, and the water heater is secured to the building frame. The

retrofit discount is not available for houses built on concrete-slab foundations, and insurance is not offered by the CEA for multi unit residential housing.

Other possible incentives associated with earthquake insurance are possible but not currently available. These include further discounts on premiums for homeowners who have retrofitted, lower deductibles and coinsurance percentages, and increased availability of coverage.

Action by the CEA, non-participating insurance companies, and the Insurance Commissioner would be needed to enact these incentives. Insurance premiums are regulated by the Department of Insurance to assure rates charged are fair, actuarially justified and that reserves are sufficient to pay losses. Because insurance companies compete for market share, they could use retrofit-based reduced premiums to attract more policies. However, this is a double-edged sword: Increased customers result in increased exposure to losses concentrated in the area affected by earthquakes.

Insurance agents could be enlisted in efforts to explain the risk of earthquake damage to residential and commercial policyholders. Property insurance policies exclude damage due to earthquake shaking, but they do cover fire losses. Because of the direct link between earthquake and fire in San Francisco, there might be an incentive to insurance companies to encourage retrofitting measures that also reduce the risk of fires following earthquakes.

Insurance companies that provide owners with liability coverage should have an interest in retrofitting. See incentive 4.5.

#### **1.10. FEMA grants**

Grants from FEMA are not an incentive per se, but because they could be used in a variety of ways to help fund incentive programs, we briefly mention them here.

FEMA offers a variety of grants to state and local agencies to reduce the risk from hazards. Hazard Mitigation Grants (Section 404 of the federal Stafford Act) provides matching grants from a fund established from a percentage of post disaster repair grants (Section 406 of the federal Stafford Act). The amount available under Section 404 depends on the magnitude of Section 406 grants to the state following disasters declared by the President and the percentages established at the time. These grants could be used in communities not affected by the declared disaster (i.e., San Francisco could apply for grant funds after an earthquake in Los Angeles).

FEMA also provides grants from the Pre Disaster Mitigation Program to state and local governments. The amount appropriated by Congress varies each fiscal year. San Francisco could apply for grants to fund some of the cost of administering mitigation programs and providing incentives.

#### **1.11. Federal, State or Private Sector Incentives**



There are a number of frequently mentioned potential financial incentives that would require action by federal or state level government or private sector institutions. It is not within the power of the City to offer these incentives. We mention them here for completeness.

These include:

- Preferable mortgage rates for earthquake resistant structures, provided by lending institutions such as Fannie Mae or private banks;
- Income tax credits and/or homeowner deductions for the costs of seismic retrofits, or accelerated depreciation rates for retrofit improvements. The value of deductions varies with taxpayer's adjusted gross income while tax credits provide a specific tax reduction to all taxpayers;
- Removal of financial disincentives for retrofitting, by removing programs that subsidize post-disaster losses through casualty tax deductions of disaster losses, and disaster assistance that subsidizes losses of owners who chose not to retrofit. This policy could have unintended implications on recovery and be perceived as callous; and
- Companies that provide building materials could offer a discount or rebate on materials used for retrofitting deficient properties. There would have to be compensating factors such as increased volume or market share due to favorable publicity.

## **2. Policy Incentives**

There are many incentives that are not directly financial that could be powerful motivators to encourage seismic retrofit, such as allowing owners to make changes to a building that they would not otherwise be allowed to make if they seismically upgrade their building. For example, Palo Alto granted density bonuses and waived parking set aside fees to encourage seismic strengthening. All of these policy incentives have "costs", social if not financial, because there are politically sound reasons for each aspect of how changes in buildings are currently regulated. Many of the ideas mentioned below might not be acceptable in San Francisco. However, city leaders might decide that seismic safety and preservation of affordable housing and neighborhood character after an earthquake are community priorities that outweigh some other needs.

### **2.1. Exemptions for Nonconforming Conditions**

Many older buildings have nonconforming conditions that do not meet current code requirements, such as construction directly on the lot line, inadequate setbacks, or inadequate parking. If upgrade projects trigger changes to nonconforming conditions, such as when buildings are altered or enlarged, the City could offer some exemptions to these requirements if owners seismically retrofit.

## **2.2. Non-Permitted Work**

Many buildings in San Francisco have made additions or alterations without permits and might avoid seeking permits for seismic retrofit to avoid detection and the associated cost to remove the improvement or have it regularized. The City could establish a program to facilitate approvals, except for illegal developments that are unsafe.

## **2.3. Zoning Incentives**

City land use policies and zoning ordinances could provide important value in return for retrofitting. The City could exempt homes that retrofit from selected zoning restrictions, such as allowing concessions regarding encroachment into set backs, increased floor/area ratios, height limits, density bonuses, and on site parking requirements. These concessions would be more powerful if owners, who elect not to use them, could sell them to others, or transfer them to another location within the City (Transfer of Development Rights).

Palo Alto modified its zoning laws to encourage owners of unreinforced masonry buildings to retrofit. The zoning laws were modified to permit expansion of the floor area of downtown buildings included in the program if the owner performed seismic upgrades. These buildings were also exempted from on-site parking requirements and fees for off-site parking.

## **2.4. Condominium Conversion**

Converting multi unit residential properties to condominiums (or tenant in common) buildings is a lengthy, complex process generally intended to limit the number of conversions. This process, which is driven by the difference in market value between rental and individually-owned units, could be used to trigger mandatory seismic retrofit, or could be eased as an incentive to those who retrofit voluntarily.

## **2.5. Exempt or Defer Triggered Work**

Owners that choose to voluntarily seismically retrofit their buildings might trigger other required work, such as:

- Americans with Disabilities Act upgrades,
- Fire resistance upgrades and sprinklers,
- Title 24 energy analysis and upgrades, or
- Neighborhood notification.

The City could exempt owners from some triggered requirements. Note that owners cannot be exempted from triggered ADA upgrades, which can be costly. This is a federal requirement and the courts have determined that seismic strengthening projects should not be exempted from this requirement.

## **2.6. Expedite Permits and Reviews**

The City could provide over the counter permits without delay whenever possible. All permit reviews for seismic retrofits could be expedited. Planning Department review for most projects with seismic retrofits could be bypassed.

## **2.7. Discretionary Zoning Permits**

The City could pass an ordinance linking discretionary zoning permits for building occupancy to seismic upgrades if a building is designated potentially hazardous.

## **2.8. Rebuilding Restrictions**

Currently, a rent-controlled apartment building that is demolished after an earthquake could be replaced by a building having a greater return on investment than apartments. This potential could be viewed as a disincentive to seismically upgrade the city's worst buildings. Post-earthquake rebuilding policies could be changed to restrict this.

## **2.9. Transfer of Development Rights (TDR)**

The City could allow owners to transfer unused development rights to another site. This incentive might be especially valuable for owners of historic properties. The value of the development rights to be transferred should be comparable to the cost of a seismic retrofit.

# **3. Technical Assistance Incentives**

Many, maybe most, owners have never hired an engineer, sought permits or engaged a contractor and find the process daunting. Technical assistance incentives help building owners navigate the complex engineering issues associated with building retrofits. City-offered technical review and advice would improve the chances that building owners would carryout effective retrofit projects.

## **3.1. Training Construction Professionals**

The City could provide training to engineers and contractors in all stages of the retrofit process: building evaluation, retrofit design, and construction. A list with the names of those who complete the training successfully would be made available to building owners. However, training would not guarantee that those on the list are properly licensed and insured, or engage in good business practices.

Training could be provided free (FEMA grants could cover the cost), at a subsidized cost, or at-cost to prospective inspectors, civil engineers, architects, contractors and owners interested in developing a retrofit specialty. Training could be offered through existing organizations and training programs. A program name and logo could be copyrighted and trained individuals allowed to use it in advertising and business documents. The City's awareness literature could promote use of trained individuals.

The City of Berkeley provided training for civil engineers in preparation for its soft story building program, and ABAG has provided training to contractors for retrofitting cripple walls.

### **3.2. Information for Building Owners**

The City could provide publications or other materials about how to work with engineers and contractors for evaluations, design and contracting. These could include information that will help them ask relevant questions and evaluate proposed costs and activities.

### **3.3. Standard Plan Sets**

The City could provide standard details and drawings to simplify and expedite approval of retrofit work. Buildings that are retrofitted according to the standard plan could receive expedited permit review and bypass engineering analysis. It might not be wise to eliminate engineering judgment on many buildings and standardized solutions might not be possible for many buildings because of unique features.

Standard plan sets and details work best for single-family homes in standard configurations. They are probably not feasible for larger, complex, multi-family buildings. Standard plan sets exist for some configurations of single family homes common in the east bay, developed by the California Building Officials, but these are not applicable to typical San Francisco homes.

### **3.4. Independent Advice and Evaluations**

Technical advice could be provided through intermediaries with no financial interest in the outcome. The Department of Building Inspection could inspect properties before approving construction drawings and critique plans. Partner organizations—private non-profits and professional associations—could provide technical advice through the auspices of the Department of Building Inspection. This type of program could be funded by a FEMA grant.

### **3.5. Assistance Navigating City Program**

Owners of multi unit buildings have a variety of characteristics. Some live in their buildings, some live out of state; some have cash available, others might have all of their assets in the property with little monthly income. Many owners have never hired an engineer or architect for a major project and have never engaged a contractor. The process of retrofitting would be daunting for many. The City could provide assistance on project financing and how to secure incentives. An ombudsman could be designated for all retrofit activities, guiding building owners through requirements, incentives, and financing options.

### **3.6. Tool Lending Library**

The city could lend tools to building owners so they could do some retrofit work without purchasing or renting specialized tools. This could be a significant incentive to handy owners of small buildings or single-family homes, but of little importance when a contractor is needed to do specialized and difficult work.

### **3.7. Building Owner Training Programs**

Building owners could be trained in:

- the City's retrofit program;
- the types of damage expected when buildings are retrofitted to different standards (performance objectives);
- how to select engineers to evaluate buildings and design retrofits and contractors to conduct the work; and,
- how to do simple retrofit work themselves.

This could be integrated into an ongoing community-training program, such as the Fire Department's Community Emergency Response Team programs.

## **4. Information Incentives**

Many building owners and users do not know how their buildings will perform in an earthquake. Being better informed about risk can allow people to make informed choices about the level of risk they are willing to accept. Information can drive market-based decisions about seismic retrofitting. Owners choose to strengthen their buildings to protect their investments; tenants choose to occupy safer buildings; and retrofitted building should be more valuable when sold.

### **4.1. Real Estate Transfer Disclosures**

Existing state real estate disclosure laws require building owners to disclose any known seismic deficiencies when a building is sold. Sellers are not required to evaluate the vulnerability of their building or to strengthen any known weaknesses.

The effectiveness of disclosure is compromised when owners often check the "do not know" option rather than speculating on deficiencies. Real estate earthquake vulnerability disclosure requirements could be amended to require an engineering evaluation of a building when sold. Existing state statute would need to be amended to require this.

Possibly the City could note information about a building's seismic status as part of its tax assessor/official record. This could include a "certificate of retrofit" or documentation of whether the building is on a list of potentially vulnerable buildings.

## **4.2. Tenant Notification**

Building owners can be mandated to notify tenants if their buildings are deemed to be potentially hazardous in earthquakes.

The City would need to identify hazardous or potentially hazardous buildings before such a program could occur. For some types of hazardous buildings (e.g., URM's) this is a relatively straightforward process. For others (e.g., older concrete buildings) this is challenging and could identify many buildings as potentially hazardous that actually pose little risk.

## **4.3. Building Ratings**

Proposals to evaluate and rate the earthquake performance of buildings are discussed frequently. The objective would be to create an evaluation system that would be meaningful and that would be replicated closely by a variety of inspectors or engineers. The ratings would reflect the risk of earthquake loss and the objective would be to influence market value, insurance premiums, and lending rates. Meaningful and replicatable analysis methods are not yet available.

## **4.4. Placards**

Owners of unreinforced masonry buildings are required to post signs warning occupants of the building's earthquake vulnerability. The objective is to give those who enter a chance to make an informed decision, and to warn those who might rent or purchase the building of its condition. These signs tend to not discourage persons from entering for limited periods, but might have an impact on market or rental values. Owners of buildings found to have a weak first story could be required to post a notice and then be allowed to remove it upon completion of retrofit work.

## **4.5. Standard of Care**

Owners have a responsibility to maintain their properties in a safe condition. Following earthquakes, those who are harmed might believe the owner is responsible for damages. Although we know of no case law on this matter, if a claim goes to court, the test will be determined by the standard-of-care, that is whether the owner took reasonable steps appropriate to the location and time to provide an appropriately safe building. By establishing criteria for identifying vulnerable buildings, clear retrofit standards and compliance deadlines, the City could affect how the standard-of-care would be interpreted and applied. Those who comply are more likely to be found as having acted reasonably than those who have not. Clarifying liability in this fashion might encourage those who are concerned about liability and might encourage liability insurers to exert pressure on owners to retrofit.

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## **References:**

California Seismic Safety Commission, Incentive to Improve California's Earthquake Safety: An "Agenda in Waiting", June 1999, SSC 99-02

Earthquake Engineering Research Institute, Incentives and Impediments to Improving the Seismic Performance of Buildings, June 1998, SR 98-1

## ***Appendix I: Article XVI, Section 6 California Constitution***

(Prohibits gift of public funds)

SEC. 6. The Legislature shall have no power to give or to lend, or to authorize the giving or lending, of the credit of the State, or of any county, city and county, city, township or other political corporation or subdivision of the State now existing, or that may be hereafter established, in aid of or to any person, association, or corporation, whether municipal or otherwise, or to pledge the credit thereof, in any manner whatever, for the payment of the liabilities of any individual, association, municipal or other corporation whatever; nor shall it have power to make any gift or authorize the making of any gift, of any public money or thing of value to any individual, municipal or other corporation whatever; provided, that nothing in this section shall prevent the Legislature granting aid pursuant to Section 3 of Article XVI; and it shall not have power to authorize the State, or any political subdivision thereof, to subscribe for stock, or to become a stockholder in any corporation whatever; provided, further, that irrigation districts for the purpose of acquiring the control of any entire international water system necessary for its use and purposes, a part of which is situated in the United States, and a part thereof in a foreign country, may in the manner authorized by law, acquire the stock of any foreign corporation which is the owner of, or which holds the title to the part of such system situated in a foreign country; provided, further, that irrigation districts for the purpose of acquiring water and water rights and other property necessary for their uses and purposes, may acquire and hold the stock of corporations, domestic or foreign, owning waters, water rights, canals, waterworks, franchises or concessions subject to the same obligations and liabilities as are imposed by law upon all other stockholders in such corporation; and

Provided, further, that this section shall not prohibit any county, city and county, city, township, or other political corporation or subdivision of the State from joining with other such agencies in providing for the payment of workers' compensation, unemployment compensation, tort liability, or public liability losses incurred by such agencies, by entry into an insurance pooling arrangement under a joint exercise of powers agreement, or by membership in such publicly-owned nonprofit corporation or other public agency as may be authorized by the Legislature; and

Provided, further, that nothing contained in this Constitution shall prohibit the use of state money or credit, in aiding veterans who served in the military or naval service of the United States during the time of war, in the acquisition of, or payments for, (1) farms or homes, or in projects of land settlement or in the development of such farms or homes or land settlement projects for the benefit of such veterans, or (2) any business, land or any interest therein, buildings, supplies, equipment, machinery, or tools, to be used by the veteran in pursuing a gainful occupation; and

Provided, further, that nothing contained in this Constitution shall prohibit the State, or any county, city and county, city, township, or other political corporation or subdivision of the



State from providing aid or assistance to persons, if found to be in the public interest, for the purpose of clearing debris, natural materials, and wreckage from privately owned lands and waters deposited thereon or therein during a period of a major disaster or emergency, in either case declared by the President. In such case, the public entity shall be indemnified by the recipient from the award of any claim against the public entity arising from the rendering of such aid or assistance. Such aid or assistance must be eligible for federal reimbursement for the cost thereof.

And provided, still further, that notwithstanding the restrictions contained in this Constitution, the treasurer of any city, county, or city and county shall have power and the duty to make such temporary transfers from the funds in custody as may be necessary to provide funds for meeting the obligations incurred for maintenance purposes by any city, county, city and county, district, or other political subdivision whose funds are in custody and are paid out solely through the treasurer's office. Such temporary transfer of funds to any political subdivision shall be made only upon resolution adopted by the governing body of the city, county, or city and county directing the treasurer of such city, county, or city and county to make such temporary transfer. Such temporary transfer of funds to any political subdivision shall not exceed 85 percent of the anticipated revenues accruing to such political subdivision, shall not be made prior to the first day of the fiscal year nor after the last Monday in April of the current fiscal year, and shall be replaced from the revenues accruing to such political subdivision before any other obligation of such political subdivision is met from such revenue.